

WHAT IS CLAIMED

1. A method comprising:

sending a first request for information to an interface,
the first request including an identifier; and

assigning an identifier for a subsequent request

5 dependent on an ordering requirement associated with the first
request.

2. The method of claim 1 in which the ordering

requirement is based on a configuration parameter associated
10 with the interface.

3. The method of claim 1 in which the subsequent request

identifier indicates the ordering requirement for the first
request.

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4. The method of claim 3 in which the subsequent

request identifier indicates that the requested information be
received from the interface in a predetermined order.

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5. The method of claim 3 in which subsequent request

identifier indicates that the requested information may be
received in any order for the respective requests.

6. The method of claim 3 in which the subsequent request identifier differs from the identifier for the first request if the ordering requirement allows requested information to be
5 received from the interface out-of-order.

7. The method of claim 3 in which the subsequent request identifier is the same as the identifier for the first request if the ordering requirement requires that requested
10 information be received from the interface in a given order.

8. The method of claim 1 in which the first request includes a request header that comprises the identifier for the first request.
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9. The method of claim 1 further comprising storing information that orders the subsequent request with respect to the first request.

20 10. The method of claim 1 in which the assigning and the sending occur at separate components.

11. The method of claim 10 in which the component that does the sending comprises outbound logic.

12. The method of claim 10 in which the component that
5 does the assigning comprises the control unit.

13. The method of claim 10 in which the component that assigns the identifier also detects receipt of the requested information.

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14. The method of claim 10 in which the component that assigns the subsequent request identifier communicates the subsequent request identifier to the component that sends the first request.

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15. A method comprising:

sending a first request for information to an interface, the first request including an identifier; and

assigning an identifier for a subsequent request
20 dependent on an ordering requirement associated with the first request, the identifiers for the first and subsequent requests comprises a pipe identifier and a priority value.

16. The method of claim 15 further comprising, if information for the first request is received, decrementing priority values for other requests that have the same pipe identifier as the first request.

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17. The method of claim 15 in which the identifiers are stored in a register.

18. A method comprising:

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at a first component that stores information about requests for information directed to an interface, receiving an indication that a request for information has been sent by a second component to the interface; and

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sending an identifier for a subsequent request to the second component.

19. The method of claim 18 in which the subsequent request identifier indicates an ordering requirement for a previous request.

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20. The method of claim 18 in which the first component updates the stored information if requested information for one of the requests is received.

21. The method of claim 20 in which the indication comprises a request header.

5 22. The method of claim 20 in which the identifier comprises a pipe identifier.

23. The method of claim 22 in which the identifier further comprises a priority value.

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24. The method of claim 18 in which the identifier is included in the subsequent request by the second component to the interface.

15 25. The method of claim 24 in which the interface determines from the identifier if the information requested by the subsequent request requires ordering relative to information requested by other requests.

26. An apparatus comprising:

a first component configured to send requests for
information to an interface, the requests including an
5 identifier; and

a second component configured to
store information about the requests,
receive indications of each request from the first
component, and

10 send, to the first component, an identifier for a
subsequent request if an indication for a request is
received from the first component.

27. The apparatus of claim 26 in which the second
15 component is further configured to receive the requested
information from the interface.

28. The apparatus of claim 26 in which the identifier
comprises a pipe identifier.

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29. The apparatus of claim 28 in which the identifier
further comprises a priority value.

30. The apparatus of claim 26 in which the second component is further configured to send the identifier for each request if an indication for the immediately preceding request is received.

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31. The apparatus of claim 26 in which the second component is further configured to assign the identifier as a function of an ordering requirement associated with the interface.

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32. The apparatus of claim 26 in which the interface is configured to communicate with multiple peripheral devices.

33. An apparatus comprising:

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a device that is configured to generate requests for information, each request including an identifier that indicates an ordering requirement for requested information; and

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an interface that is configured to receive the requests from the device, send the requested information to the device, and communicate with a peripheral device to obtain the requested information.

34. The apparatus of claim 33 in which the identifier of a respective request indicates the ordering requirement for information requested by an earlier request.

5 35. The apparatus of claim 33 in which the identifier comprises a pipe identifier.

36. The apparatus of claim 33 in which the device is configured to generate different identifiers for each request
10 if the requests can be received in an order other than the order that the requests are generated, and the interface is configured to send the requested information to the device in an order other than the order that the requests are generated if different identifiers are detected for the requests.

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37. A system comprising:

an apparatus configured to generate and track requests for information from a peripheral device and, for a first request, specify, in a subsequent request, if the requested information for the first request is to be returned to the apparatus in a predetermined order or in any arbitrary order; and

an interface configured to relay the requests and the requested information between the apparatus and the peripheral device and return the requested information for the first request in the predetermined order if the subsequent request specifies.

38. The system of claim 37 comprising a plurality of sets of the apparatus and the interface.

39. The system of claim 38 in which each set is configured to return the requested information either in a predetermined order or in any arbitrary order.

40. A machine-accessible medium, having stored thereon one or more sequences of instructions for causing a digital data processing unit to perform operations comprising:

receiving an indication of a request for information sent
5 by a component to an interface;

storing information about the request for information;
and

sending an identifier for a subsequent request to the component.

41. The medium of claim 40 in which the sent identifier indicates to the interface the order in which the information for the request and the subsequent request are to be delivered.

42. The medium of claim 40 in which the digital processing unit comprises the control unit.